APPENDICES

Appendix 1: *A. paniculata* plant identification transcript

INSTITUT BIOSAINS
INSTITUTE OF BIOSCIENCE

Reference : UPM/IBS/UB/H13/20
Date : 28th February 2020

Dr. Rohazila Mohamad Hanafiah
Fakulti Pergigian,
Universiti Sains Islam Malaysia,
Jalan Pandan Utama,
Pandan Indah, 56100
Kuala Lumpur.

Mrs.,

<u>CONFIRMATION OF PLANT SPECIES</u>

With all respect the above matter is referred.

Please be informed that the plant specimens submitted for identification by:

Student : **Dr. Rohazila Mohamad Hanafiah**

Supervisor : -

Voucher No.	Family Name	Scientific Name	Local Name
MFI 0164/20	Compositae	*Acmella paniculata* (Wall. Ex DC.) R.K. Jansen	Subang nenek

Herbarium : **Institute of Bioscience**
Person In-Charge : **Mohd Hafizi Adzmi Hanafi**
Determined : **Dr. Mohd Firdaus Ismail**

It should be noted that we are not involved with anything as a result of research conducted by the host.

Thank you.

"With Knowledge We Serve"

I who carry out the trust,

DR. MOHD FIRDAUS ISMAIL
Biodiversity Unit
Institute Of Bioscience
University Putra Malaysia

Appendix 2: McFarland Standard

McFarland Standards are used to standardize the approximate number of bacteria in a liquid suspension by comparing the turbidity of the test suspension with that of the McFarland Standard.

The figure shows the comparison between 2.0 McFarland Standard with sample test, where the culture suspension visually showed approximately equal to the standard.

A McFarland Standard is a chemical solution of barium chloride and sulfuric acid; the reaction between these two chemicals results in the production of a fine precipitate, barium sulfate. When shaken well, the turbidity of a McFarland Standard is visually comparable to a bacterial suspension of known concentration as indicated below.

Cat No.	McFarland Standard	1% $BaCl_2$ (mL)	1% H_2SO_4 (mL)	Approximate Bacterial Suspension / mL
TM50	0.5	0.05	9.95	1.5×10^8
TM51	1.0	0.10	9.90	3.0×10^8
TM52	2.0	0.20	9.80	6.0×10^8
TM53	3.0	0.3	9.7	9.0×10^8
TM54	4.0	0.4	9.6	1.2×10^9
TM55	5.0	0.5	9.5	1.5×10^9
TM56	6.0	0.6	9.4	1.8×10^9
TM57	7.0	0.7	9.3	2.1×10^9
TM58	8.0	0.8	9.2	2.4×10^9
TM59	9.0	0.9	9.1	2.7×10^9
TM60	10.0	1.0	9.0	3.0×10^9